PATENT
674506-2035.2

AMENDMENT

Kindly amend the application, without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents, as follows.

IN THE CLAIMS:

Kindly amend the claims, without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents, as follows:

1-95. (Cancelled)

96. (Previously Presented) A substantially pure, recombinant glycosylated erythropoietin, produced by a baculovirus expression system in cultured insect cells, wherein said erythropoietin has relative homogeneity or is purified to 95% or greater and said erythropoietin stimulates erythropoiesis and has an activity *in vivo* of at least 200,000 U/mg or of about 500,000 U/mg.

97. (Previously Presented) Erythropoietin of claim 96 wherein said erythropoietin stimulates erythropoiesis and has an activity *in vivo* of at least 200,000 U/mg.

98. (Previously Presented) Erythropoietin of claim 96 wherein said erythropoietin stimulates erythropoiesis and has an activity *in vivo* of at least 500,000 U/mg.

99. (Previously Presented) Erythropoietin of claim 96 produced by a method comprising:

culturing insect cells in at least one bioreactor whereby there is an insect cell culture,

wherein the insect cells contain a recombinant baculovirus containing exogenous DNA encoding erythropoietin,

supplying medium in at least one vessel whereby there is culture medium,

circulating culture medium and/or insect cell culture, whereby the bioreactor and vessel are in fluid communication and the insect cell culture and/or culture medium are in circulation,

delivering oxygen to the insect cell culture and/or culture medium, and

collecting the expressed product, and/or baculovirus and/or the cells.

100. (Previously Presented) Erythropoietin of claim 96 produced by a method comprising:

culturing insect cells in a bioreactor whereby there is an insect cell culture,

wherein the insect cells contain a recombinant baculovirus containing exogenous DNA encoding erythropoietin,

supplying culture medium in a vessel whereby there is culture medium,

circulating the insect cell culture through a dialysis means,

circulating culture medium through the dialysis means,

wherein the dialysis means in fluid communication with the bioreactor and the vessel,

whereby

there is

a first, cell culture, loop between the bioreactor and the dialysis means, and

a second, media replenishment, loop between the vessel and the bioreactor,

performing dialysis between the culture medium and the cell culture, and

collecting the erythropoietin.

101. (Previously Presented) Erythropoietin as claimed in claim 100, wherein the method further comprises:

delivering oxygen into the cell culture loop and measuring physical and/or chemical parameter(s) of the cell culture and/or the culture medium.

102. (Previously Presented) Erythropoietin as claimed in claim 101, wherein the method further comprises adjusting physical and/or chemical parameter(s) of the cell culture and/or the culture medium in response to data from the measuring.

103. (Previously Presented) Erythropoietin as claimed in claim 101, wherein the method further comprises measuring pH and measuring dissolved oxygen concentration, adjusting physical and/or chemical parameter(s) of the cell culture and/or the culture medium in response to data from the measuring, wherein the adjusting comprises adjusting temperature to maintain a desired temperature, adjusting pH to maintain a desired pH, and adjusting dissolved oxygen concentration and dissolved carbon dioxide concentrations, whereby the dissolved carbon dioxide levels are adjusted in response to pH measurement(s).

104. (Previously Presented) Erythropoietin as claimed in claim 103, wherein the method further comprises adjusting dissolved oxygen levels in response to dissolved oxygen measurement(s), adjusting pH to a desired level in response to pH measurement(s) by adjusting the dissolved carbon dioxide concentration such that dissolved carbon dioxide concentration is adjusted when pH varies from the desired level, and the dissolved oxygen measurement varies periodically as a function of time, adjusting the dissolved oxygen concentration so that the dissolved oxygen measurement varies from 30% to 90% or from 40% to 80% or from 50% to 70%; or, so that the dissolved oxygen measurement averages about 60%.

105 (Previously Presented) Erythropoietin as claimed in claim 104, wherein the adjusting of the dissolved oxygen concentration so that the dissolved oxygen measurement varies from 30% to 90%.

106 (Previously Presented) Erythropoietin as claimed in claim 104, wherein the adjusting of the dissolved oxygen concentration so that the dissolved oxygen measurement varies from 40% to 80%.

107 (Previously Presented) Erythropoietin as claimed in claim 104, wherein the adjusting of the dissolved oxygen concentration so that the dissolved oxygen measurement varies from 50% to 70%.

108 (Previously Presented) Erythropoietin as claimed in claim 104, wherein the adjusting of the dissolved oxygen concentration so that the dissolved oxygen measurement averages about 60%.

109. (Previously Presented) Erythropoietin as claimed in claim 104, wherein the method further comprises adjusting the dissolved oxygen concentration so that the dissolved oxygen measurement varies from high value to low value over about 10 to about 30 minutes or over about 20 minutes.

110. (Previously Presented) Erythropoietin as claimed in claim 103, wherein the method further comprises adjusting dissolved oxygen levels in response to dissolved oxygen measurement(s), and adjusting pH to a desired level in response to pH measurement(s) by adjusting the dissolved carbon dioxide concentration such that dissolved carbon dioxide concentration is adjusted when pH varies from the desired level, and the dissolved oxygen measurement varies periodically as a function of time, and wherein a plot of the dissolved oxygen measurement as a function of time comprises a sine wave.

111. (Previously Presented) Erythropoietin as claimed in claim 99 wherein the insect cells are *Spodoptera frugiperda* cells.

112. (Previously Presented) Erythropoietin as claimed in claim 100 wherein the insect cells are *Spodoptera frugiperda* cells.

113. (Previously Presented) Erythropoietin as claimed in claim 111 wherein the medium is serum free.

114. (Previously Presented) Erythropoietin as claimed in claim 112 wherein the medium is serum free.

115. (Previously Presented) Erythropoietin as claimed in claim 111 wherein the insect cells are *Spodoptera frugiperda* SF900+ cells.

116. (Previously Presented) Erythropoietin as claimed in claim 112 wherein the insect cells are *Spodoptera frugiperda* SF900+ cells.

117-124. (Cancelled)

125. (New) A substantially pure, recombinant glycosylated erythropoietin, produced by a baculovirus expression system in cultured insect cells, wherein said erythropoietin has relative homogeneity or is purified to 95% or greater and said erythropoietin stimulates erythropoiesis and biologicial activity of at least 200,000 U/mg or of about 500,000 U/mg.

126. (New) Erythropoietin of claim 125 produced by a method comprising:

culturing insect cells in at least one bioreactor whereby there is an insect cell culture,

wherein the insect cells contain a recombinant baculovirus containing exogenous DNA encoding erythropoietin,

supplying medium in at least one vessel whereby there is culture medium,

circulating culture medium and/or insect cell culture, whereby the bioreactor and vessel are in fluid communication and the insect cell culture and/or culture medium are in circulation,

delivering oxygen to the insect cell culture and/or culture medium, and

collecting the expressed product, and/or baculovirus and/or the cells.